

## Leprosy

(Hansen's disease)

Last revised December 21, 2011

### I. IDENTIFICATION

A. CLINICAL DESCRIPTION: A chronic bacterial infection caused by *Mycobacterium leprae*. Major forms of the disease are:

- **Indeterminate:** Early lesions, usually hypopigmented macules, without developed tuberculoid or lepromatous features.
- **Tuberculoid:** One or a few well-demarcated, hypopigmented, and anesthetic skin lesions, frequently with active, spreading edges and a clearing center; peripheral nerve swelling or thickening may also occur. Cell-mediated immune responses are intact.
- **Borderline (Dimorphous):** Skin lesions characteristic of both tuberculoid and lepromatous forms.
- **Lepromatous:** A number of erythematous papules and nodules or an infiltration of the face, hands and feet with lesions in bilateral and symmetric distribution that progresses to thickening of the skin. Cell-mediated immunity is greatly diminished.

B. REPORTING CRITERIA: upon laboratory confirmation

C. LABORATORY CRITERIA FOR CONFIRMATION:

Histopathologic examination of skin biopsy by an experienced pathologist is the best method of establishing the diagnosis and is the basis for classification of leprosy.

Demonstration of acid-fast bacilli in skin or dermal nerve, obtained from the full thickness skin biopsy of a lepromatous lesion. Acid-fast bacilli are rarely found in patients with the tuberculoid and indeterminate forms of disease. Culture is usually not successful.

A PCR test is available on a limited basis after consultation with the National Hansen's Disease (Leprosy) Program at 1-800-642-2477, weekdays 9 am to 5:30 pm ET.

D. WISCONSIN CASE DEFINITION: A case that is laboratory-confirmed.

### II. ACTIONS REQUIRED / PREVENTION MEASURES

A. Report to the patient's local health department either electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS; <https://wedss.wisconsin.gov/webvcmr/pages/login/login.aspx>), by mail or fax using an Acute and Communicable Disease Case Report (F-44151), or by other means within 72 hours upon recognition of a case or suspected case.

B. EPIDEMIOLOGY REPORTS REQUIRED:

- *Electronically* – Report through WEDSS

OR

- *Paper Copy* – Acute and Communicable Diseases Case Report (F-44151)

AND

- Hansen's Disease (Leprosy) Surveillance Form

**C. PUBLIC HEALTH INTERVENTIONS:**

In accordance with Wisconsin Administrative rule DHS 145.05, local public health should follow the methods of control recommended in the current edition of *Control of Communicable Diseases Manual* (see reference at end of this document).

Clinicians and patients should be aware of the resources available to them. Consultation is available through the National Hansen's Disease Program at <http://www.hrsa.gov/hansensdisease/index.html> or 1-800-642-2477, weekdays 9 am to 5:30 pm ET. Free medication and care at regional clinics is available for patients; residential care is also available through the national program.

Although the disease can be spread from person to person, transmission is rare and quarantine or isolation are not recommended. It is estimated that infectiousness ends after as little as one day of appropriate antibiotic treatment, so early diagnosis and treatment are the keys to disease control. Hansen's disease is not spread through sexual contact, nor is it transmitted vertically from mother to fetus.

Household contacts of persons with Hansen's disease should receive an annual, thorough physical exam each year for five years after exposure. Any skin rash should be biopsied and examined for Hansen's disease.

**III. CONTACTS FOR CONSULTATION**

- A. Phone 1-800-642-2477, weekdays 9 am to 5:30 pm ET for consultation and referral to one of 900 private physicians nationwide who have expertise in treating Hansen's disease (leprosy) (Hawaii: 1-808-733-9831). <http://www.hrsa.gov/hansensdisease/index.html>
- B. LOCAL HEALTH DEPARTMENT – REGIONAL OFFICES – TRIBAL AGENCIES: <http://www.dhs.wisconsin.gov/localhealth/index.htm>
- C. BCDER/COMMUNICABLE DISEASE EPIDEMIOLOGY SECTION: 608-267-9003
- D. WISCONSIN STATE LABORATORY OF HYGIENE/BACTERIOLOGY: 608-263-3421.

**IV. RELATED REFERENCES**

- Heymann DL, ed. Leprosy In: *Control of Communicable Diseases Manual*. 19th ed. Washington, DC: American Public Health Association, 2008: 347 – 351.
- Pickering LK, ed. Leprosy. In: *Red Book: 2009 Report of the Committee on Infectious Diseases*. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2009: 423-426.